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CONTENTS

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   INTRODUCTION

   REVIEW OF LITERATURE

   NEED/IMPORTANCE OF THE STUDY

   STATEMENT OF THE PROBLEM

   OBJECTIVES

   HYPOTHESES

   RESEARCH METHODOLOGY

   RESULTS & DISCUSSION

   FINDINGS

   RECOMMENDATIONS/SUGGESTIONS

   CONCLUSIONS

   SCOPE FOR FURTHER RESEARCH

   ACKNOWLEDGMENTS

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   APPENDIX/ANNEXURE

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- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

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- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

UNPUBLISHED DISSERTATIONS AND THESES

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

ONLINE RESOURCES

- Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

WEBSITES

- Garg, Bhavet (2011): Towards a New Natural Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

FINANCIAL HEALTH OF HOUSING FINANCE INSTITUTIONS IN INDIA: AN EMPIRICAL EVALUATION

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ABSTRACT
Housing Finance Companies (HFCs) represent one of the major institutional groups in the formal system for housing finance in India. This study has tried to analyze the financial health of selected Housing Finance Institutions. The analysis of performance of Housing Finance Companies is made using some widely used indicators of measuring performances of finance companies, namely financial ratios. To study and examine the financial health of selected Housing finance companies Z score analysis has been used. From the analysis it can be concluded that the efficiency in management of working capital helps the sample Housing Finance Companies to maintain the good financial health and all the select Housing Finance Institutions were also in the too healthy zone during the period of study.

KEYWORDS
HFCs, Discriminant Function, Housing Finance, financial ratios, MDA.

INTRODUCTION
The changing economic environment will impose new demands on the specialized innovative measures for mobilizing resources in the competitive market as the resources from the allocated pool are being gradually phased out. Housing Finance Institutions today depend substantially on resources from the banking system, without making any major effort to diversify and broad-base the spectrum of resources raised. In this process, the financial structure of these institutions tends to get further skewed, with a dependence on wholesale resources for lending to a retail customer base. In the ultimate analysis, these institutions need to base their resources and focus on two principal markets viz. the household savings sector through the operation of innovative saving programmes including those linked to credit for housing and the capital markets, in order to raise high volume of resources through a combination of cost effective debt and equity instruments. Further, housing finance in India is at a nascent stage and the teething problems have to be sorted out to make investment in this sector more attractive. In addition to that, Indian finance and banking industry did suffer significantly during past two years; it was relatively sheltered from the triggers of global melt down, suffering instead due to monies from Foreign Institutional Investments drying up, falling interest rates rapidly raising inflations and poor investor confidence. Given the magnitude and importance of this industry it is not surprising that this Housing Finance Institutions has garnered much attention from researchers. Hence, the present study makes notable contribution to the existing literature on Indian housing finance institutions.

STATEMENT OF THE PROBLEM
The success of any business is largely depends on its effective financial management practices which starts with procurement of funds and ends with effective utilization of funds. Therefore continuous financial analysis of financial position and results is required to take corrective measures to meet the short-term and long-term requirements adequately. Financial statements are the sources for financial information, based on which the financial planning and decision making is done. The profit and loss account provides data about the operating activities where as balance sheet provides the value of acquired assets and liabilities of the business at a particular point of time. The absolute figures reported in the financial statements do not serve the purpose of measuring the financial health of the companies. Hence, the financial analyst has to analyze the financial data in order to ascertain the strengths and weaknesses of the companies. Despite the financial analyst had many analytical tools, ratio analysis is most powerful toll to ascertain the financial health of the companies. Alone a single ratio does not serve the purpose. Therefore, it is necessary to combine the different ratios into a single measure of the provability of sickness or failure. Multiple discriminant analysis is useful tool in such situations. “The use of MDA helps to consolidate the effect of all ratios”. The present study is concerned with the analysis of financial health of eight selected Housing Finance Institutions using MDA.

OBJECTIVE OF THE STUDY
To examine the financial health and viability of the selected Housing Finance Institutions.

RESEARCH METHODOLOGY
The present study is concerned with the analysis of financial health of the selected eight Housing Finance Institutions were found accepting deposits from the public and having continuous and uniform data throughout the period of ten years from 1999-2000 to 2008-2009.The entire study is based on secondary data. The data has been collected from websites of the companies.

MEASUREMENT OF FINANCIAL HEALTH
APPLICATION OF Z SCORE ANALYSIS
"Z" score analysis has been established by Edward I. Altman (1968) to evaluate the general trend in the financial health of an enterprise over a period. Many of the individual accounting ratios used frequently to predict the financial performance of an enterprise may only provide warnings when it is too late to take a corrective action. Further single ratio does not convey much of the sense. There is no internationally accepted standard for financial ratios against which the results can be compared. Therefore, Edwin I Altman combined a number of accounting ratios (liquidity, leverage, activity and profitability) to form an index of the probability, which was an effective indicator of corporate performance in predicting bankruptcy. Altman established the following guidelines to be used to classify firms as either financially sound or bankrupt.

GUIDELINES

Situation	Z – Scores	Zones
I	Below 1.8	Bankruptcy Zone – Certain to fall
II	1.8-3	Healthy Zone – Uncertain to Predict
III	3 and Above	Too Healthy Zone – Not to Fall

1. "Z" score of below 1.8, the unit is considered to be in bankruptcy zone. Its failure is certain and extremely likely and would occur probably within n period of two years.
2. "Z" score between 1.8, and 3, the firms' financial viability is considered to be healthy. The failure in this situation is uncertain to predict.
3. "Z" score above 3, the unit is in too healthy zone. Its financial health is very viable and not to fall.

VARIABLE DEFINITION

The variables (financial ratios) required for calculating Altman's Z Score are used to test the solvency position of the company. Solvency is the ability to meet long-term obligations and accomplish long-term expansion and growth. These ratios are also used to detect signs of looming bankruptcy. The following five ratios have been computed in this respect:

1. RATIO OF WORKING CAPITAL TO TOTAL ASSET (X_1)

The ratio of working capital to total assets is considered to be a reasonable predictor of deepening trouble for a company. A company which experiences repeated operating losses generally suffers a reduction in the working capital relative to its total assets. Table No.1 reveals the position of the Select HFIs in terms of Ratio of Working Capital to Total Asset.

TABLE NO. 1: RATIO OF WORKING CAPITAL TO TOTAL ASSET (Ratio in times)

Year	HDFC	DHFL	DEWAN	GRUH	CANFIN	LIC	HUDCO	GIC
1999-2000	0.07	0.09	0.08	0.05	0.07	0.03	0.99	0.06
2000-2001	0.10	0.08	0.07	0.10	0.06	0.04	0.98	0.04
2001-2002	0.07	0.04	0.06	0.06	0.05	0.07	0.98	0.06
2002-2003	0.04	0.05	0.08	0.08	0.08	0.06	0.98	0.05
2003-2004	0.39	0.10	0.02	0.05	0.03	0.02	0.93	0.04
2004-2005	0.02	0.06	0.03	0.04	0.02	0.01	0.06	0.03
2005-2006	0.03	0.01	0.04	0.04	0.02	0.01	0.07	0.02
2006-2007	0.04	0.02	0.04	0.06	0.02	0.01	0.05	0.01
2007-2008	0.03	0.06	0.04	0.04	0.01	0.00	0.04	0.03
2008-2009	0.01	0.06	0.03	0.04	0.01	0.03	0.00	0.01
2009-2010	0.06	0.05	0.06	0.06	0.04	0.06	0.10	0.05
2010-2011	0.20	0.11	0.02	0.08	0.07	0.08	0.06	0.02
2011-2012	0.11	0.08	0.05	0.06	0.06	0.08	0.06	0.04
Mean	0.09	0.06	0.05	0.06	0.04	0.04	0.41	0.04

Source: Annual Reports- Results Computed

It may be seen from the above table that the ratio of almost all the sample institutions were fluctuating during the study period. It was due to the fact that the working capitals of these institutions are decreasing and the total assets are increasing year by year. It shows the company had more concentration on the investments in fixed assets. The efficiency of the sample companies in the matter of management of working capital helps them to maintain the good financial health. But the working capital management of these institutions was satisfactory and not effective and sound especially in HUDCO the ratio was high showing higher investments in working capital.

2. RATIO OF RETAINED EARNINGS TO TOTAL ASSETS (X_2)

The Ratio of Retained Earnings to Total Assets provides information on the extent to which a company has been able to reinvest its earnings in itself. An older company must have time to accumulate earnings, so this measurement tends to create a positive bias towards older companies. Ratio of Retained Earnings / Total Assets of the sample companies were calculated and presented in Table No.2.

Table No.2: RATIO OF RETAINED EARNINGS TO TOTAL ASSETS (Ratio in times)

Year	HDFC	DHFL	DEWAN	GRUH	CANFIN	LIC	HUDCO	GIC
1999-2000	0.03	0.02	0.02	0.03	0.02	0.03	0.01	0.01
2000-2001	0.03	0.02	0.02	0.01	0.03	0.02	0.01	0.01
2001-2002	0.03	0.01	0.03	0.01	0.02	0.02	0.01	0.01
2002-2003	0.03	0.01	0.02	0.01	0.02	0.02	0.01	0.00
2003-2004	0.02	0.02	0.02	0.02	0.02	0.03	0.01	0.01
2004-2005	0.03	0.02	0.01	0.02	0.03	0.03	0.01	0.01
2005-2006	0.03	0.03	0.02	0.03	0.03	0.01	0.02	0.01
2006-2007	0.02	0.02	0.02	0.02	0.03	0.01	0.01	0.02
2007-2008	0.02	0.02	0.01	0.02	0.02	0.02	0.01	0.02
2008-2009	0.03	0.02	0.02	0.02	0.03	0.02	0.02	0.02
2009-2010	0.06	0.05	0.04	0.04	0.06	0.04	0.04	0.04
2010-2011	0.08	0.04	0.07	0.01	0.04	0.03	0.01	0.06
2011-2012	0.04	0.01	0.03	0.05	0.03	0.06	0.06	0.03
Mean	0.03	0.02	0.03	0.02	0.03	0.03	0.02	0.02

Source: Annual Reports- Results Computed

Conventionally, retained earnings to total assets ratio near 1:1 (100%) indicates that growth has been financed through profits, not increased debt. The analysis as per Table No.2 shows that the ratio was very less in all the sample Housing Finance Institutions which reflects that these institutions were not financing the capital expenditure through retained earnings. If the companies maintain the same, the sustainable growth of this company cannot be assured.

3. RATIO OF EARNING BEFORE INTEREST AND TAX (EBIT) TO TOTAL ASSETS (X_3)

This ratio adjusts a company's earnings for varying factors of income tax and makes adjustments for leveraging due to borrowings. These adjustments allow more effective measurements of the company's utilization of its assets. This ratio has been calculated for all the sample companies and shown in Table No.3.

TABLE NO. 3: RATIO OF EARNINGS BEFORE INTEREST AND TAXES TO TOTAL ASSETS (Ratio in times)

Year	HDFC	DHFL	DEWAN	GRUH	CANFIN	LIC	HUDCO	GIC
1999-2000	0.14	0.14	0.14	0.12	0.14	0.14	0.10	0.11
2000-2001	0.13	0.13	0.14	0.12	0.13	0.13	0.10	0.12
2001-2002	0.12	0.12	0.13	0.13	0.13	0.12	0.11	0.11
2002-2003	0.11	0.12	0.12	0.13	0.12	0.12	0.10	0.10
2003-2004	0.12	0.13	0.11	0.11	0.12	0.12	0.09	0.09
2004-2005	0.09	0.12	0.10	0.11	0.10	0.13	0.10	0.07
2005-2006	0.08	0.10	0.08	0.08	0.12	0.12	0.10	0.09
2006-2007	0.08	0.09	0.08	0.09	0.13	0.12	0.10	0.08
2007-2008	0.09	0.09	0.08	0.09	0.13	0.14	0.12	0.10
2008-2009	0.11	0.10	0.11	0.10	0.14	0.14	0.12	0.12
2009-2010	0.53	0.29	0.40	0.36	0.57	0.56	0.36	0.30
2010-2011	0.30	0.36	0.29	0.40	0.46	0.50	0.29	0.36
2011-2012	0.37	0.47	0.37	0.30	0.53	0.39	0.40	0.40
Mean	0.17	0.17	0.16	0.15	0.22	0.21	0.16	0.15

Source: Annual Reports- Results Computed

The operational performance and earning power could be assessed through this ratio of EBIT to Total assets which lead the business success or failure. Table No. 3 discloses that the ratio is fluctuating with decreasing trend for the first half of the study period in case of all the HFIs selected for the study which leads the mean ratio of these companies ranges between 10 and 14 per cent. The position was comparatively better in case of CANFIN and LIC. Hence, it is suggested to the sample companies that they should concentrate on improving their operating performance.

4. RATIO OF MARKET VALUE OF EQUITY TO BOOK VALUE OF DEBT (X_4)

It is the measure of the long-term solvency of a company. It is the reciprocal of the familiar debt-equity ratio. Equity is measured by the combined market value of all shares, while debt includes both current and long term liabilities. This ratio is used to ascertain the soundness of the long-term financial policies. The following table clearly presents the Ratio of Market Value of Equity to Book Value of Debt.

TABLE NO.4: RATIO OF MARKET VALUE OF EQUITY TO BOOK VALUE OF DEBT (Ratio in times)

Year	HDFC	DHFL	DEWAN	GRUH	CANFIN	LIC	HUDCO	GIC
1999-2000	4.98	8.19	6.00	12.40	7.90	7.22	9.18	6.51
2000-2001	6.20	8.21	5.86	9.23	7.95	7.44	7.71	6.68
2001-2002	6.52	8.18	5.48	7.28	8.06	8.23	7.58	7.18
2002-2003	6.94	6.90	6.45	7.31	8.57	8.40	7.24	7.96
2003-2004	7.64	5.44	7.45	9.38	7.57	8.60	7.39	9.05
2004-2005	8.45	3.65	8.48	9.03	7.50	9.55	6.84	10.91
2005-2006	9.4	3.02	8.26	10.99	7.96	9.24	6.22	11.91
2006-2007	10.46	4.31	8.46	12.43	9.23	10.24	5.92	10.76
2007-2008	10.30	5.47	8.86	7.95	8.86	10.58	5.21	6.14
2008-2009	5.79	6.48	8.92	9.32	7.71	11.11	4.51	6.68
2009-2010	4.74	3.37	5.08	7.31	5.41	6.06	3.99	4.56
2010-2011	4.15	2.82	4.78	7.03	4.81	7.12	4.57	5.21
2011-2012	5.33	4.17	5.48	8.07	6.03	6.48	3.79	5.80
Mean	6.99	5.40	6.88	9.05	7.50	8.48	6.16	7.64

Source: Annual Reports- Results Computed

From the Table No. 4, it is observed that the equity portion, on an average , of all the select Housing Finance Institutions were high in comparison to debt portion in the capital structure during the study period. It is evident that the mean ratios ranges between 5.99 times in case of DHFL and 9.53 times in the case of GRUH. It shows that the interest of the shareholders has been high due to the better financial position of the institutions and also it provides a margin of safety to its creditors in times of bankruptcy.

5. RATIO OF TOTAL INCOME TO TOTAL ASSETS (X_5)

This ratio is a standard financial measure for illustrating the income generating capacity of the assets in the financial institutions and also a measure of management's capacity to deal with competitive conditions. Table No.5 presents this ratio for the study period.

TABLE NO. 5: RATIO OF TOTAL INCOME TO TOTAL ASSETS (Ratio in times)

Year	HDFC	DHFL	DEWAN	GRUH	CANFIN	LIC	HUDCO	GIC
1999-2000	0.15	0.15	0.16	0.15	0.13	0.14	0.10	0.13
2000-2001	0.13	0.15	0.15	0.14	0.14	0.14	0.11	0.14
2001-2002	0.14	0.14	0.15	0.16	0.14	0.13	0.12	0.14
2002-2003	0.12	0.14	0.13	0.15	0.13	0.13	0.11	0.12
2003-2004	0.12	0.15	0.13	0.14	0.13	0.13	0.12	0.11
2004-2005	0.10	0.15	0.12	0.13	0.14	0.10	0.11	0.13
2005-2006	0.08	0.12	0.09	0.10	0.13	0.16	0.11	0.13
2006-2007	0.08	0.10	0.08	0.09	0.12	0.16	0.09	0.12
2007-2008	0.09	0.09	0.09	0.10	0.14	0.15	0.11	0.14
2008-2009	0.11	0.10	0.12	0.10	0.14	0.17	0.12	0.14
2009-2010	0.12	0.13	0.17	0.12	0.15	0.16	0.09	0.15
2010-2011	0.10	0.15	0.15	0.14	0.13	0.13	0.12	0.12
2011-2012	0.17	0.09	0.13	0.11	0.14	0.17	0.11	0.13
Mean	0.12	0.13	0.13	0.12	0.14	0.14	0.11	0.13

Source: Annual Reports- Results Computed

It is observed from Table No.5 that the total income to total assets ratio of HDFC, DHFL, DEWAN and GRUH were decreasing every year excepting few. It shows that these companies are having capacity to increase their total income over periods but not to the desired level. When the income generating capacity of the assets of the select HFIs are concerned, the average ratio is fluctuating between 11% and 14% during the period under study. The ratio of CANFIN and LIC fluctuates but with increasing trend during the period of study.

Z SCORE ANALYSIS

The data collected were first analysed with the help of five accounting ratios. These different ratios are combined into a single measure-Z Score Analysis with the help of MDA. The formula used to evaluate the "Z"score analysis as established by Altman is as follows.

$Z = 0.012X_1 + 0.014X_2 + 0.033X_3 + 0.006X_4 + 0.999X_5$

Where;

X_1 = Working Capital to Total Assets

X_2 = Retained Earnings to Total Assets

X_3 = EBIT to Total Assets

X_4 = Equity to Total Assets

X_5 = Sales to Total Assets

Based on M*ultiple Discriminate Analyses (MDA)*, the model predicts a company's financial health based on a discriminant function of the form." Z" is the overall index and the variables X_1 to X_5 are computed with the relevant data for the study period.

TABLE NO.6: Z SCORE VALUES

Year	HDFC	DHFL	DEWAN	GRUH	CANFIN	LIC	HUDCO	GIC
1999-2000	3.93	5.99	4.59	8.55	5.79	5.30	7.51	4.75
2000-2001	4.69	5.96	4.48	6.58	5.76	5.41	6.57	4.88
2001-2002	4.86	5.84	3.29	5.79	5.82	5.91	6.53	5.19
2002-2003	5.06	5.03	4.78	5.37	6.14	6.01	6.27	5.61
2003-2004	5.46	4.21	5.32	6.60	5.44	6.05	6.28	6.26
2004-2005	5.87	2.99	5.19	6.35	5.29	6.52	4.91	7.36
2005-2006	6.47	2.44	5.72	7.48	5.49	6.24	4.54	7.94
2006-2007	7.12	3.18	5.85	8.41	6.26	6.88	4.22	7.28
2007-2008	7.07	3.96	6.09	5.53	6.10	7.16	3.81	4.39
2008-2009	4.24	4.65	6.26	6.49	5.43	7.50	3.37	4.76
2009-2010	5.51	3.89	5.75	7.89	6.23	6.88	4.58	5.10
2010-2011	4.84	3.48	5.31	7.66	5.51	7.82	5.07	5.77
2011-2012	6.02	4.82	6.06	8.59	6.79	7.18	4.42	6.40
Mean	5.47	4.34	5.28	7.02	5.85	6.52	5.23	5.82

Source: Annual Reports- Results Computed

For determining the financial health of this company, this study used Z score model, which provides the financial soundness of the institutions. Table No.6 shows the Z score values of the housing finance companies taken for the study. All the select housing finance Institutions have recorded between 4.42 in case of DHFL and 8.20 in case of DEWAN which is more than 3. It is the indication of viable financial health of the sample Housing Finance Companies. Thus, as per the Altman's guidelines, financial position of all these institutions was in the too healthy zoneduring the study period.

CONCLUSION

An attempt has been made in the present study to have an assessment over the financial health of Select Housing Finance Institutions in India. To evaluate the financial conditions and performance of these institutions, this study uses Z score model which captures the predictive viability of a company's financial health. The model employed a combination of financial ratios that ultimately predicts a score, which can be used to determine the financial health of a company. It is found from the analysis of data that the selected HFCs were having less investment in working capital except HUDCO. **The institutions have adequate MOS to their creditors** and their income generating capacity is also satisfactory. The results obtained through Altman's Z score analysis revealed that all the select Housing Finance Institutions were in the too healthy zone during the period of study, which implies that the financial health of these institutions is good and commendable.

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